

PUBLICATION NUMBER : 03257167  
PUBLICATION DATE : 15-11-91

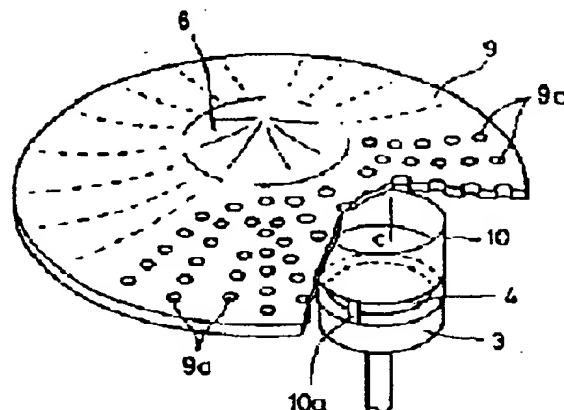
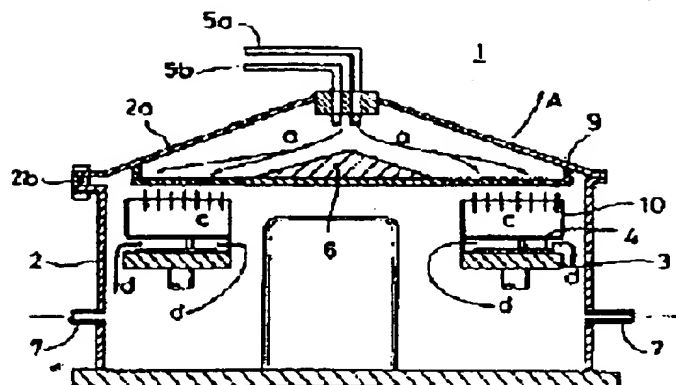
APPLICATION DATE : 06-03-90  
APPLICATION NUMBER : 02053997

APPLICANT : HITACHI ELECTRON ENG CO LTD;

INVENTOR : KOMATSU NOBUHISA;

INT.CL. : C23C 16/44 H01L 21/205 H01L 21/31

TITLE : REACTION GAS FLOW MECHANISM  
OF ATMOSPHERIC BATCH  
OPERATED CVD DEVICE



ABSTRACT : PURPOSE: To form uniform thin films on wafers by fixing a distributing plate having many small holes to uniformly distribute injected reactive gases as the laminar flow in a perpendicular direction to the lower side of an upper cap.

CONSTITUTION: The reactive gases are evenly distributed by the small holes 9a of the distributing plate 9 and are made into the laminar flow in the perpendicular direction. The reactive gases are evenly admitted into cylinders 10 of respective sample bases 3 so as to flow perpendicularly therein. These gases are blown at equal rates onto the respective wafers 4 and the surfaces of the sample bases 3 around the wafers. The cylinders rotate and revolve together with the sample bases 3 in this case but the speeds of the rotation and revolution are low and, therefore, the reactive gases in the cylinders 10 are maintained in directivity and uniformity without being disturbed and the blown reactive gases form the uniform thin films on the surfaces of the wafers 4 by a chemical reaction. In addition, the drifting and sticking of flakes 8 to the sample bases 3 are averted.

COPYRIGHT: (C) JPO